GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

UNSTARRED QUESTION NO:3584
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Abnormal Weather
Sawant Shri Arvind Ganpat;Verma Smt. Rekha Arun

Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the weather pattern prevailing in the country in the recent years is abnormal;

(b) if so, whether the variations of the weather phenomena and development of abnormal weather pattern like drought, flood, cyclone, heat and cold waves, etc. are being monitored on a continuous basis;

(c) if so, the details thereof along with the areas most affected by such conditions and the reasons therefor;

(d) whether any action plan has been chalked out to tackle this adverse impact of abnormal weather condition; and

(e) if so, the details thereof?

Answer

THE MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTRY OF EARTH SCIENCES
(Shri Y. S. Chowdary)
(a) No Madam. The weather pattern prevailing in the country is normal. However some anomalous weather patterns such as drought, flood, cyclone, heat and cold waves etc do occur from time to time.

(b) Yes Madam.

(c) The Government is monitoring the variability of the weather phenomena and development of abnormal weather pattern like drought, flood, flash flood, cyclone, rain induced landslides, heat cold wave, etc. on a continuous basis. Heavy rain events (>10 cm/day) over central India are found to have increased in the recent decades while weak and moderate events are decreasing. The extreme rain events which are becoming more intense in recent years are localized and could be part of the natural variability of the monsoon system.

Heat -waves typically occur between March to June. Heat waves are more frequent over the Indo-Gangetic plains of India.

Northern and eastern states such as Rajasthan, Punjab, Haryana, New Delhi, Jammu and Kashmir, Himachal Pradesh, Madhya Pradesh, Bihar and Tripura are affected by the Cold Wave.

Indian sub-continent having a coast line of 7516 kms is affected by the Tropical Cyclones. There are 13 coastal states/UTs encompassing 84 coastal districts which are affected by cyclones. Four States (Andhra Pradesh, Odisha, Tamil Nadu and West Bengal) and one UT (Pondicherry) on the East Coast and One State (Gujarat) on the West Coast are more vulnerable to Tropical Cyclones and associated storm surge.

The states falling within the periphery of "India Flood Prone Areas" are West Bengal, Orissa, Andhra Pradesh, Kerala, Assam, Bihar, Gujrat, Uttar Pradesh, Haryana and Punjab. The intense rains during the monsoon season causes rivers like Brahmaputra, Ganga, Yamuna etc. to swell their banks, which in turn floods the adjacent areas.

(d) Yes Madam.

(e) IMD is responsible for monitoring, detection and forecasting of weather including severe weather events such as cyclones, heavy rainfall, extreme temperature etc. It provides forecast of these events at national, regional and state levels through its three tier structure.

For effective operational cyclone activities, an appropriate institutional mechanism comprising cyclone warning division at India Meteorological Department (IMD), New Delhi and three Area Cyclone Warning Centers (ACWCs) at Kolkata, Chennai, Mumbai and Cyclone Warning Centers (CWCs) at Bhubaneswar, Vishakhapatnam and Ahmadabad are functional on 24X7 basis.

In order to meet specific requirements of flood forecasting, which is provided by Central Water Commission (CWC), India Meteorological Department (IMD) operates Flood Meteorological Offices (FMOs) at thirteen locations viz., Agra, Ahmedabad, Asansol, Bhubaneshwar, Guwahati, Hyderabad, Jalpaiguri, Lucknow, New Delhi, Patna, Srinagar, Bangaluru and Chennai. Apart from this, IMD also supports Damodar Valley Corporation (DVC) by providing QPF for Damodar river basin areas for their flood forecasting activities. During the flood season, FMOs provide valuable meteorological support to the CWC for issuing flood warnings

in respect of the 43 rivers of India covering 146 river basins. CWC is working in close association with IMD and State Governments for timely flood forecast whenever the river water level rises above warning level.